TABLE II., FEMALES.

1.	Fœtal	pulsation,	150	per minute.	9.	Fœtal	pulsation,	140	per minute.
2.	"	"	142	"	10.	"	"	152	"
3.	"	"	140	"	11.	"	"	140	"
4.	"	"	150	"	12.	"	"	143	"
5.	"	"	144	"	13.	"	"	144	"
6.	"	"	140	"	14.	"	"	141	"
7.	"	"	140	"	15.	"	"	160	"
8.	"	"	144	"					

From these two tables it seems that when the pulsation varies from 120 to 140, the probability is that the fœtus will be a male, and when the pulsation varies from 140 to 160, the fœtus will likely be found to be a female. But there are some exceptions to these facts. In three cases in which the pulsation was from 150 to 160, the fœtus proved to be a male; and in fifteen cases in which the pulsation varied from 116 to 138, the fœtuses were found to be females. It therefore appears that there is less frequent variation in the pulsation in the male fœtus than in the female; or rather that there are fewer cases in which the heart's action exceeds 140 in the male, than that it falls below that number in the female.

These tables are exceedingly interesting, however, as far as they go; and the subject is well worthy further attention.—*Edin. Med. Journ.*, June, 1870.

MEDICAL JURISPRUDENCE AND TOXICOLOGY.

62. *Toxic Action of Pyrogallic Acid.*—In a communication made to the Academy of Sciences on the 1st of March, 1869, M. J. Personne proposed that poisoning by phosphorus should be treated by the administration of oil of turpentine, on the grounds that phosphorus produces its poisonous effects by removing oxygen from the blood, and that this action is prevented by turpentine. It occurred to him that this view of the theory of phosphorus-poisoning would be greatly strengthened were similar physiological effects found to be produced by other substances, which agree with phosphorus in its deoxidizing property, but present no other remarkable resemblance to it. With the object of ascertaining this, M. Personne made some experiments with pyrogallic acid, the results of which he now briefly narrates (*Comptes Rendus*, 4 Octobre, 1869, p. 749). Two dogs received by injection into the stomach 30 and 60 grains respectively of pyrogallic acid, in a large quantity of water. Poisonous symptoms quickly supervened in both, and these symptoms closely resembled those that are caused by phosphorus. After death, the liver was found greatly enlarged, the heart soft and friable and filled with clots of black blood, and the bladder contained a brown fluid resembling that which is obtained when an alkaline solution of pyrogallic acid is shaken up with air. A microscopic examination of the heart and liver revealed an immense quantity of fat. The muscular fibres of the heart were concealed by fat globules; and the liver of the dog that had received 30 grains weighed nearly 8000 grains, or about $\frac{1}{16}$th of the whole weight of the animal. It is thus shown that two substances which agree in little else than their power of abstracting oxygen from the air cause nearly identical symptoms and morbid changes in the living economy, notwithstanding their great dissimilarity in general properties and in origin. M. Personne believes that the above results distinctly prove that both phosphorus and pyrogallic acid produce death by asphyxia, which may be either rapid or slow, according as the quantity absorbed is such as to deprive the blood of its oxygen with greater or less rapidity.—*Journal of Anat. and Phys.*, May, 1870.

63. *Poisoning by Carbolic Acid.*—The subject of tar-poisoning, which is now attracting a good deal of attention in connection with the extensive employ-

ment of carbolic acid, is not by any means a novel one. It has been long well known that various preparations of tar, if applied freely to the skin, were capable of absorption, and might bring about certain special symptoms. The reader will find an account of these in Hebra's work on Skin-Diseases, vol. ii. p. 43. Numerous observers have recently met with cases in connection with the use of carbolic acid; and we publish this week an interesting account of one, by Dr. Wallace, of Liverpool.

We may briefly advert to some of the points to which future observers should direct their attention. The most constant symptom is *black* urine. It has been proved that this occurs in an equally marked form, whether tar or some colourless preparation of it be the agent employed. It has been noticed over and over again from carbolic acid. There is yet some hesitation on the part of chemists in deciding as to the exact cause of the colour. Dr. Stevenson, of Guy's Hospital, gives his opinion against the presence of colouring matter from the blood. He proved that the black urine did not contain more than the normal quantity of iron. We may note, also, that black urine does not usually earn the epithet of "smoky," since it does not become opaque. Sometimes it is perfectly bright. It rarely contains albumen. The hypothesis that the colouring matter is derived from the tar itself seems the most probable. Dr. Hughes proved years ago that creasote given internally produced exactly the same changes.

Next, we want careful observations as to the constitutional symptoms which attend this condition of urine. In slight cases there appear to be none; but in the more severe, vomiting, delirium, and even tendency to coma, may be induced. Does the condition of slight blood-poisoning by carbolic acid prejudice, or otherwise, a patient's chance of recovery after an operation?

Thirdly, we want more information as to the occurrence of the symptoms, referred to in connection with different forms of solution of carbolic acid. A weak watery solution freely used appears to involve the most risk; and some believe that with oil there is but little, and in the form of plaster none.

Lastly, it is well worth investigation, whether the use of carbolic acid and its allies may not exert considerable influence on certain diseases of the nervous system. We noticed a few weeks ago the remarkable rapidity with which it causes the skin to tingle after immersion, and the fact that it would induce aching of nerves in the limb far above the parts which had been immersed.

In conclusion, we must offer a caution as to the too free external use of this agent; it would appear to be quite possible to encounter, inadvertently, considerable risk. Although we are not aware of any cases of actual death from its legitimate surgical use, we know of several in which alarming symptoms occurred. Dogs are very easily killed by carbolic acid baths. The remedy is the free use of diluents taken by the mouth; and it is equally useful if employed as a precaution.—*Brit. Med. Journal*, April 30, 1870.

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64. *Poisoning by Phosphorated Ether.*—At a meeting of the Imperial Academy of Medicine, January 25, M. MARRIOTTE communicated an observation on toxic symptoms produced by phosphorated ether. They occurred in a patient suffering from locomotor ataxy, who, being a prey to an access of the violent darting pains characteristic of that disease, had, in accordance with the advice of his physician, taken every hour, in soup, a tablespoonful of a mixture composed of four grammes of phosphorated ether, mint water, and syrup of gum, of each sixty-four grammes. The darting pains disappeared; but the last dose of the medicine was followed by the ordinary symptoms of irritant poisoning. The patient was for two or three days in a very precarious state, but finally recovered, under suitable treatment.

M. DEVERGIE, in the course of the discussion which followed the communication, observed that phosphorated ether was a very bad preparation, and one which should never be employed. The ether contained in it volatilized, and the phosphorus remained, consequently its strength was quite uncertain.